What is claimed is:

1.   A client apparatus comprising:

a cache memory which accumulates information externally provided;

an accumulation judgment portion which judges
5 whether or not the information to be externally provided is accumulated in said cache memory;

a request portion which requests acquirement of information when said accumulation judgment portion judges that the information to be externally provided
10 is not accumulated in said cache memory; and

an information processor which processes either one of the information accumulated in said cache memory and the information externally provided in response to the request from said request portion.

2.   The client apparatus according to claim 1, further comprising:

a storage judgment portion which judges whether or not the information externally provided can be
5 stored in said cache memory;

an information reduction portion which reduces an amount of the information accumulated in said cache memory based on attribute information composed of preference information of a user and profile
10 information indicative of a process ability of said client apparatus when said storage judgment portion

judges that the information externally provided can not be stored in said cache memory; and

a control portion which controls said cache
15 memory such that the information externally provided in response to the request from said request portion is stored after the amount of the information is reduced by said information reduction portion.

3.   An information providing system comprising:

an information source server which provides information in response to a request;

a client apparatus; and

5   a data communication network which connects said client apparatus to said information source server,

wherein said client apparatus includes:

a cache memory which accumulates the information provided by said information source server;

10   an accumulation judgment portion which judges whether or not the information to be provided by said information source server is accumulated in said cache memory;

a request portion which requests acquirement of
15 the information to said information source server through said data communication network when said accumulation judgment portion judges that the information to be provided by said information source server is not accumulated; and

20   an information processor processes either one of the information accumulated in said cache memory and the information provided by said information source server in response to the request from said request portion.

4.   The information providing system according to claim 3, further includes:

        a storage judgment portion which judges whether or not the information provided by said information 5 source server can be stored in said cache memory;

        an information reduction portion which reduces the amount of the information accumulated in said cache memory based on attribute information composed of preference information of a user and profile 10 information indicative of a process ability of said client apparatus when said storage judgment portion judges that the information provided by said information source server can not be stored in said cache memory; and

15   a control portion which controls said cache memory such that the information provided by said information source server in response to the request from said request portion is stored after the amount of the information is reduced by said information 20 reduction portion.

5.   The information providing system according to claim 4, wherein said data communication network comprises:

a gateway apparatus which is connected to said
5   client apparatus through a first data communication network and connected to said information source server through a second data communication network,

wherein said gateway apparatus includes:

a second request portion which requests
10 acquirement of the information to said information source server through said second data communication network with said attribute information and communication attribute information indicative of communication abilities of said first data
15 communication network and said second data communication network when the request of said request portion of said client apparatus is received through said first data communication network;

a second cache memory which accumulates
20 the information provided by said information source server in response to the request from said second request portion; and

a transfer portion which transfers the information accumulated in said second cache memory to
25 said client apparatus through said first data communication network based on said attribute information and said communication attribute

information.

6.   The information providing system according to claim 5, wherein said information source server provides the information to said gateway apparatus based on said attribute information and said
5   communication attribute information in response to the request from said second request portion.

7.   The information providing system according to claim 6, wherein said gateway apparatus provides the information to said client apparatus based on said attribute information and said communication attribute
5   information in response to the request from said request portion.

8.   The information providing system according to claims 7, wherein said client apparatus further includes an attribute information change portion in which at least one of said attribute information and
5   said communication attribute information is dynamically changed.

9.   The information providing system according to claims 8, wherein said information reduction portion removes the information having a low priority from said cache memory, wherein the priority is determined

5   based on said attribute information.

10.   The information providing system according to
claims 9, wherein said information reduction portion
compresses the information stored in said cache memory
based on said attribute information.

11.   The information providing system according to
claims 10, wherein the information provided by said
information source server includes menu data for
selecting an item and is linked to other information
5   corresponding to other menu data, the other
information being provided by said information source
server based on the selected item, and
said control portion controls said cache memory
such that a remaining capacity of said cache memory is
10   increased by changing the link generated between the
menu data and the other menu data, every time one of
the menu data and the other menu data is stored in
said cache memory.

12.   The information providing system according to
claims 11, wherein said attribute information used in
said client apparatus is prepared for each
predetermined usage tendency.

13.   The information providing system according to

claim 12, wherein said attribute information used in
said client apparatus can be changed into other
attribute information having another predetermined
5   usage tendency.

14.   An information providing method comprising:

(1) providing an information source server and a
client apparatus;

(2) accumulating information provided by said
5   information source server in a cache memory;

(3) judging whether or not the information to be
provided by said information source server is
accumulated in said cache memory;

(4) requesting acquirement of the information to
10 said information source server when said judging step
(3) judges that the information to be provided by said
information source server is not accumulated in said
cache memory; and

(5) processing either one of the information
15 accumulated in said cache memory and the information
provided by said information source server in response
to the request.

15.   The information providing method according to
claim 14, further comprising:

(6) judging whether or not the information
provided by said information source server can be

5   stored in said cache memory;

(7) reducing the amount of the information accumulated in said cache memory based on attribute information composed of preference information of a user and profile information indicative of a process

10   ability of said client apparatus when said judging step (6) judges that the information provided by said information source server can not be stored in said cache memory; and

(8) controlling said cache memory such that the

15   information provided by said information source server in response to the request is stored after the amount of the information is reduced by said reducing step.

16.   The information providing method according to claim 15, further comprising:

(9) providing a gateway apparatus which is connected to said client apparatus through a first

5   data communication network and connected to said information source server through a second data communication network;

(10) requesting acquirement of the information to said information source server through said second

10   data communication network with said attribute information and communication attribute information indicative of communication abilities of said first data communication network and said second data

communication network when the request of said
15 requesting step (4) is received through said first
data communication network;

(11) accumulating the information provided by
said information source server into a second cache
memory in response to the request in said requesting
20 step (10) ; and

(12) transferring the information accumulated in
said second cache memory to said client apparatus
through said first data communication network based on
said attribute information and said communication
25 attribute information.

17.   The information providing method according to
claim 16, wherein said information source server
provides the information to said gateway apparatus
based on said attribute information and said
5 communication attribute information in response to the
request in said requesting step (10).

18.   The information providing method according to
claim 17, wherein said gateway apparatus provides the
information to said client apparatus based on said
attribute information and said communication attribute
5 information in response to the request in said
requesting step (4).

19.   The information providing method according to
claims 18, wherein said reducing step (7) removes the
information having a low priority from said cache
memory, wherein the priority is determined based on
5   said attribute information.

20.   The information providing method according to
claims 19, wherein said reducing step (7) compresses
the information stored in said cache memory based on
said attribute information.